DOCUMENT RESUME

ED 062 461 UD 012 299

AUTHOR	Mercer, Jane R.
TITLE	The Origins and Development of the Pluralistic Assessment Project.
INSTITUTION	California State Dept. of Mental Hygiene, Sacramento. Bureau of Research.
SPONS AGENCY	California State Dept. of Education, Sacramento. Office of Compensatory Education.; National Inst. of Mental Health (DHEW), Bethesda, Md.
PUB DATE	Jan 72
NOTE	26p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Cultural Pluralism; Demography; *Educational Diagnosis; Ethnic Groups; *Intelligence Tests; *Mental Retardation; *Minority Groups; Negroes; *Norms; Program Development; Test Bias; Test Interpretation
IDENTIFIERS	California; Wechsler Intelligence Scale for Children

ABSTRACT

The Pluralistic Assessment Project, which has been funded for three years by the National Institute of Mental Health, was developed in response to the results of earlier studies on the epidemiology of mental retardation. During 1963 and 1964, data were gathered for a comprehensive epidemiology of mental retardation in the City of Riverside, California. It was found that the criteria for classification of persons as mentally retarded varied as a function of sociocultural group. Two follow-up studies involved a clinical epidemiology on 3000 households and a survey of 241 agencies, as to the classification procedures used to classify persons as mentally retarded. The present project will produce an Adaptive Behavior Inventory for Children standardized on representative samples of Anglo, Mexican-American, and black public school children, five through 11 years of age, which can be used to assess a child's performance in non-academic roles using socioculturally relevant norms. The project will produce socioculturally relevant norms on the 1973 edition of the Wechsler Intelligence Scale for Children for use with Anglo, Mexican-American, and black children. The project will also produce a Health History and Impairment Inventory standardized on a representative sample of Anglo, Mexican-American, and black children. (Author/JM)

ED 062461

THE ORIGINS AND DEVELOPMENT OF THE PLURALISTIC ASSESSMENT PROJECT

Jane R. Mercer, Ph.D.
Associate Professor, Sociology
University of California, Riverside
Research Specialist
California Department of Mental Hygiene

January 1972

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Data in this paper has been collected under the auspices of the following grants: Public Health Service Grant R01 MH20646-01 from the National Institute of Mental Health, Department of Health, Education and Welfare; Public Health Service Research Grant No. MH08667, from the National Institute of Mental Health, Department of Health, Education and Welfare and Public Health Service General Research Support Grant No. 1-S01-FR-05632-02, from the Department of Health, Education and Welfare, Socio-Behavioral Study Center in Mental Retardation, Pacific State Hospital, Pomona, California; Public Health Service Grant No. PH43-67-756; McAteer Grant No. M8-14A and M9-14 from the California State Department of Education, Office of Compensatory Education. The opinions and conclusions stated in this paper by the author(s) are not to be construed as officially reflecting the policy of the Department of Mental Hygiene, State of California.

UD 012293

The Origins and Development of the Pluralistic Assessment Project

We first became interested in developing a measure of adaptive behavior which would provide standardized data from a representative population of persons living in the community eight years ago when we were designing an epidemiology of mental retardation.

Epidemiology of Retardation[1]

During 1963 and 1964, data for a comprehensive epidemiology of mental retardation was collected in the City of Riverside, California. The purpose of the study was to study the distribution of mental retardation in the population of a medium-sized American city (population approximately 100,000) both from a traditional clinical perspective and from a sociological perspective.

Riverside was chosen because it is a self-contained community, not a suburb of Los Angeles. People who live there work there. The city has a relatively complete social structure with an upper class that goes back to early settlement days as well as a middle and lower class. The population is about 8% Black and 13% Mexican-American. In addition, Riverside has a large enough population to provide a sizeable number of retardates for study but small enough so that a field survey could develop a comprehensive picture of the social and clinical characteristics of its population.

We planned to locate persons with the "symptoms" of mental retardation, to count them, to describe who they were and where they lived, and to calculate prevalence rates for various subpopulations. We used two approaches to case finding: A field study in which we contacted a representative sample of 6,907 persons under 50 years of age, and an agency survey of 241 community organizations providing services to retarded persons and their families.

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[1]This investigation was supported by Public Health Service Research Grant No. MH-08667 from the National Institute of Mental Health, Department of Health, Education, and Welfare, and Public Health Service Research Support Grant No. 1-S01-FR-05632 from the Department of Health, Education and Welfare.

We found that, conceptually, we had to handle each aspect of the study separately. As a result, we evolved two different conceptual frameworks for thinking about mental retardation--the traditional clinical perspective and a social system perspective. The basic assumption of the clinical perspective is that mental retardation is a chronic handicap that exists in the person as an individual characteristic. It assumes that mental retardation has characteristic symptoms which can be diagnosed with the proper diagnostic instruments. From this perspective, the epidemiologist decides whether a person <u>is</u> mentally retarded. If he is clinically retarded, then he is counted as a pathological case in the epidemiology.

There are two models of "normal" which are used simultaneously in the clinical perspective: The pathological and the statistical. The pathological model is based on a disease model which posits that mental retardation is a biological dysfunction typified by particular symptoms. If a person has the symptoms of mental retardation, then he <u>is</u> mentally retarded. The epidemiologist looks for symptoms. There is a strong tendency when using this model to think in biological terms and look for biological signs. The other model for "normal" within the clinical perspective is the statistical model. A person is abnormal if he falls into the tails of the statistical distribution of the population on whatever measure is being used for diagnosis.

There are fundamental differences between these two models of "normal." In the pathological-disease model there is only one kind of abnormal, the person who is ill or has pathological signs. Only the pathological end of the continuum is clearly defined. Health is treated as a residual category. A statistical model, on the other hand, generates two types of abnormals, the abnormally high and the abnormally low. When a pathological model is used, there may or may not be persons in the population being studied who have the symptoms of the ailment under investigation. However, with a statistical model, there are always abnormals in any population being studied because the model itself generates abnormals. With a statistical model, if there is any variation at all in the population, there will be people in the extreme tails of the distribution, the abnormals.

When we did the field survey and screened the general population, we used the clinical perspective and tried to adhere as closely as possible to the standards of a sound medical epidemiology. However, for the study of those nominated by community organizations, the clinical model was clearly not adequate. Every organization had different standards for judging whom they regarded as mentally retarded. Persons nominated by the Department of Mental Hygiene had different characteristics than those nominated by the public schools or the County Health Department, and so forth. Therefore, in the agency study, we operated from a social system perspective and defined mental retardation, not as a handicap nor as a disability, but as a social status and a role that a person plays in the social system. Just as a person may occupy the status of doctor, teach-

er, school psychologist, student, son or daughter, so may a person occupy the status of a mental retardate and play the role of a mental retardate. From this perspective, one is not retarded unless he plays the role of retardate and holds that status in a social system.

The Clinical Epidemiology and Adaptive Behavior

For the clinical epidemiology we selected a representative sample of 3,000 housing units located within the city's limits, approximately 10% of the population. We screened all persons in each housing unit under the age of 50 for possible mental retardation, approximately 7,000 persons. In order to determine the "symptoms" of mental retardation, we used the definition of the American Association on Mental Deficiency in which a mental retardate is defined as an individual who is subnormal in intellectual performance and adaptive behavior when compared to his age peers. These deficiencies may be related to biological abnormalities, but evidence of organic involvement is not mandatory to an evaluation as a mental retardate. Intellectual subnormality was operationalized by using the Stanford-Binet LM for older children and adults and the Kuhlman-Binet for young children.

Because there are no standardized measures of adaptive behavior which are applicable to the general population of the community, we developed a series of 28, age-graded, scales for this purpose. The scales for young children contained many items modified from the work of Gesell and Doll. The scales for school-age children and adults consist of a series of questions concerning social role performance.

Physical disabilities were rated on the basis of responses to questions about visible organic abnormalities with which the respondent, usually the mother, would be familiar and which she would be able and willing to report, i.e., ambulation, vision, hearing, presence of seizures, self-help, and so forth.

From these three measures, we generated an eight-fold typology for screening the population in the field epidemiology. Table 1 depicts the typology.

Insert Table 1 About Here

Type 1 mental retardates are those who fail all three scales, they are the physically disabled mental retardates. Type 2 mental retardates

Table 1

Typology of Mental Retardation

Type	Failure Mandatory for a Diagnosis of Mental Retardation: Intellectual Performance	Failure Mandatory for a Diagnosis of Mental Retardation: Adaptive Behavior	Failure Optional for a Diagnosis of Mental Retardation: Physical Disability	Clinical Types (Hypothesized)
Mental Retardates				
1	Fail	Fail	Fail	Severely & Profoundly Retarded - TMR
2	Fail	Fail	Pass	Moderately & Borderline Retarded "Familial & Undifferentiated" - EMR
One-Dimensional Retardates				
Quasi-Retarded				
3	Fail	Pass	Fail	Theoretical Type - No Cases Anticipated in Epidemiology
4	Fail	Pass	Pass	Persons Not Socialized to American Middle Class Skills, Knowledge, & Motivational Patterns
Behaviorally Maladjusted				
5	Pass	Fail	Fail	The "Physically Disabled" who are also "Physically Handicapped"
6	Pass	Fail	Pass	Behaviorally Maladjusted
Nonretarded - "Normals"				
7	Pass	Pass	Fail	The "Physically Disabled" who are not "Physically Handicapped"
8	Pass	Pass	Pass	"Normal" Population

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are those who fail both the intellectual dimension and adaptive behavior, but do not have serious physical disabilities. They are the nondisabled mental retardates.

A two-dimensional definition of mental retardation generates a new type of individual not identified in one-dimensional taxonomies, those who fail the intellectual dimension but pass adaptive behavior. Under a two-dimensional definition, such persons are not mentally retarded but would be labeled as mental retardates under a one-dimensional typology. We have called them the quasi-retardates.

A third group in the typology consists of those who pass an intelligence test but fail adaptive behavior. We hypothesized that this group would consist of behaviorally maladjusted persons. However, this category is not of central importance in the epidemiology and will not be discussed further. Types 7 and 8 consist of persons who pass both the intelligence test and adaptive behavior. They are the "normals."

There were two phases to the field survey. In the initial interview, phase one, all members of each housing unit were screened using the Adaptive Behavior and Physical Disability Scales. Usually one respondent answered for all members of each household. In most cases, the respondent was the spouse of the head-of-household who answered questions for those individuals in the housing unit to whom she was related. Unrelated individuals were individually interviewed.

In phase two, a subsample of the phase one sample was selected for intelligence testing. This subsample was designed to select a disproportionately large number of those persons in the population who have a high risk of having the clinical symptoms of mental retardation.

We analyzed the data using three different cutoff points for subnormality: The AAMD cutoff which defines anyone more than one standard deviation below the mean for the population as subnormal; the educational criterion which defines anyone with an intelligence test score of 79 or below as subnormal; and the traditional criterion which defines the lowest 3% as subnormal. We found that, regardless of the cutoff used for defining subnormal, disproportionately more low-status persons and persons from ethnic minority backgrounds were identified as clinically retarded. When socioeconomic status was held constant, the disproportions for Negroes tended to disappear. Disproportions were reduced, but not eliminated, for Mexican-Americans.

When we compared the characteristics of the mentally retarded (Type 1 and 2) with the quasi-retarded (Type 3 and 4), we found that the clinically retarded came from significantly lower socioeconomic levels; had parents with significantly less education; were more likely to come from families in which the head-of-household was divorced, separated, or widowed; and were more likely to live in deteriorated housing. On the other hand, the quasi-retarded were more likely to come from homes in which English was spoken all the time and in which the head-of-household was born in the South. We found that the quasi-retarded were more likely to be Mexican-American and Negro than the clinically retarded and that they

were significantly more likely to be performing their educational, occupational, and family roles in a manner indistinguishable from the rest of the population. We concluded that a two-dimensional definition of mental retardation is a viable concept worthy of conceptualization because it does differentiate a group of persons who show adequate social competence even though they score low on an intelligence test.

Another question was addressed by the study. Does it make any difference which criterion level is used as the cutoff for subnormal--the traditional criterion of the lowest 3%; the educational criterion of the lowest 9%; or the AAMD criterion of the lowest 16%? We found that the issue is not important for middle and upper status Anglos. Their rates of clinical retardation were not materially increased by raising the cutoff level. However, rates for low status Anglos, Mexican-Americans, and Negroes were greatly inflated when the higher criteria were used.

We also found that rates of clinical retardation based on the traditional criterion more closely approximated rates from other major epidemiologic studies of mental retardation than did rates based on the educational or AAMD criteria. The traditional criterion is also the criterion which most closely approximated the actual rate of labeling in the community of Riverside as revealed in the clinical case register. Therefore, we concluded that there is a significantly higher level of diagnostic consensus among clinicians and researchers in the field of mental retardation when the traditional criterion is used than when either of the other cutoff levels are employed.

We looked at the actual social-role performance of adults screened in the field survey as "borderline retardates" and compared their performance to that of persons identified as clinical retardates at the traditional criterion level. We found that most of those adults who failed only the educational or AAMD criteria were filling the usual complement of marital, occupational, and community roles played by adults. Unlike those identified as clinically retarded under the traditional criterion, there was little in the role performance of the adult "borderline retardate" that would warrant calling him either subnormal or mentally deficient. Therefore, we concluded that the traditional criterion approximates the actual labeling practices of the community and produces more convergence between clinical and social system definitions of deviance. At this criterion level persons are least likely to be labeled as retarded who, as adults, will be able to fill a normal complement of social roles.

Another question addressed by the epidemiology was that of the relationship between sociocultural factors and clinical retardation. Both in the field survey and in the social system survey of community agencies, persons from ethnic minorities and lower socioeconomic levels were overrepresented among those identified as mentally retarded. Using a two-dimensional definition of retardation and adhering to the traditional 3% cutoff level reduced these disproportions but did not completely eliminate them.

Using data for Mexican-Americans and Negroes in the field survey, we did a stepwise multiple regression in which an intelligence test score was used as the dependent variable and 18 sociocultural characteristics

of the family were used as independent variables. It was possible to predict 37% of the variance in Mexican-American scores from these sociocultural factors and 27% of the variance in Negro scores. When a similar analysis was done for elementary school children in the Riverside Unified School District, 15% of the variance in Full Scale WISC IQ's of 598 Mexican-American elementary school children could be accounted for by 17 sociocultural characteristics of their families. Nineteen percent of the variance in the Full Scale WISC IQ's of 339 Negro children could be accounted for by sociocultural background characteristics.

Mexican-American elementary school children with higher intelligence test scores tended to come from less crowded homes and have mothers who expected them to have some education beyond high school. They had fathers who were reared in an urban environment (over 10,000 population) and had a ninth grade education or more. They lived in a family which spoke English all or most of the time and was buying its home.

The primary variables for Negro children were similar to those found for Mexican-American children. Instead of overcrowding, the size of family emerged as the most important single variable for Negroes. Educational expectations for the child appeared as the second most significant variable after the common variance with size of family was taken into account. Marital status of the head, socioeconomic index score for the occupation of the head-of-household, and whether the family is buying or renting its home appeared in that order. Thus, the more a Negro child's family resembled the modal sociocultural configuration of the community, the higher the child's score on the WISC.

The five most predictive background characteristics in the multiple regression were used to form an index. Each child was given one point for each of his family background characteristics which were like the dominant society on the five primary sociocultural variables predicting Full Scale IQ for his group. Each Negro and Mexican-American elementary school child was assigned one of five groups according to the extent to which his family background conformed to the modal configuration for the total community of Riverside. The mean Full Scale IQ for that group of Mexican-American children whose families were most like the dominant cultural configuration was 104.4. The mean Full Scale IQ for the Negro children whose homes most resembled the modal cultural configuration of the community was 99.5. Differences between both means and the national norms for the test can be accounted for by chance.

On the other hand, those children in the group least like the sociocultural mode for the community had a mean score almost one standard deviation below the norms for the test. The 127 Mexican-American children with 0 or 1 characteristics of the sociocultural modal group had a mean Full Scale IQ of 84.5. The 47 Black children in that category had a mean Full Scale IQ of 82.7. The average child in the 0-1 group would run the risk of being labeled as a borderline retardate.

Two major conclusions from this portion of the study, the clinical epidemiology, are basic to our continuing research. First, we concluded

that a one-dimensional diagnosis for retardation in which only an intelligence test score is systematically used as the basis for evaluation is not equitable for persons from non-Anglo backgrounds. There is a real need for a standardized measure of adaptive behavior. Second, we concluded that pluralistic assessment procedures which take the socio-cultural characteristics of the individual's background into account when evaluating the meaning of a particular intelligence test score or adaptive behavior score, would produce greater convergence between clinical diagnosis and social system definitions. Such procedures would eliminate the ethnic disproportions which result from present clinical procedures.

The Social System Epidemiology

From a social system perspective, mental retardation is defined as an achieved social status, a social position which a person can achieve just as surely as a person can achieve the status of teacher or of social worker. Thus, we can describe how a person becomes mentally retarded just as we can describe how a person becomes a plumber, an electrician or a senator. If we regard mental retardation in this way, we can ask, "How does a person become mentally retarded in the community? How does he get labeled by other people as a mental retardate?"

We asked 241 agencies in Riverside to give us the names of every individual whom they served who was mentally retarded and to share with us whatever information they had about them. The first question each organization asked was always, "What do you mean by mental retardation?" Our answer was always the same, "We are studying the meaning of mental retardation and do not want to define it for you. We want to know what you mean by mental retardation. We would like you to use your professional judgment and whatever standards your agency uses and tell us who is mentally retarded." There were no refusals. Everyone was willing to use their professional judgment and tell us who was mentally retarded.

This process resulted in a list of 2,500 names, with many duplications. In some instances, individuals were nominated 12 to 15 times. On the other hand, many persons were nominated by only one organization. When we sorted out the duplicates, our register of 2,500 persons shrank to approximately 1,000 unduplicated cases. We divided this list of persons into two registers, persons nominated by clinical organizations and persons nominated by nonclinical organizations. Clinical organizations are those which have either medical doctors or psychologists on their staffs to diagnose and identify mental retardates. Such persons are the "legitimate labelers" in the community. They have the legal right to diagnose mental retardation. It is the findings from the clinical register which are relevant to our continuing research.

In order to better understand the labeling process, we studied the characteristics of persons labeled as mental retardates by different types of community agencies. We grouped the formal organizations in the community into eight categories: Public Schools; Law Enforcement; Public Welfare-Vocational Rehabilitation; Department of Mental Hygiene; Private Organizations for the Mentally Retarded; Private Service Organizations; Medical Facilities; and Religious Organizations. When we studied the age distributions of persons nominated by various agencies, we found that every agency in the community except Public Welfare-Vocational Rehabilitation was nominating disproportionately more school-age children and significantly fewer adults than would be expected. All agencies, except Medical Facilities, were also nominating disproportionately fewer preschool children. Medical Facilities, however, were nominating many more preschool children than their proportion in the population. Thus, emphasis on school-age children was a general characteristic of labeling in most community organizations.

We studied the socioeconomic characteristics of persons being nominated by various organizations and found that public agencies, i.e., the Public Schools, Law Enforcement, Public Welfare-Vocational Rehabilitation, were the organizations which were nominating disproportionately large numbers of persons from low socioeconomic levels. Medical Facilities, Religious Organizations, Department of Mental Hygiene, and Private Organizations were lebeling retardates from all socioeconomic levels in approximately the same proportion as they appeared in the community. Therefore, we concluded that the socioeconomic disproportions characteristic of the clinical case register were primarily the result of nominations from public agencies.

A similar pattern emerged for nominations by ethnic group. Again, the Public Schools, Law Enforcement, and Public Welfare-Vocational Rehabilitation were nominating disproportionately large numbers of Mexican-Americans and Negroes as retardates while the other community organizations were nominating disproportionately more Anglos as labeled retardates.

We were interested in the level of the norms used by various agencies in defining mental retardation, and looked at the average intelligence test score of persons nominated as retardates by different formal organizations in the community. Law Enforcement Agencies and the Public Schools had the largest percentage of their nominees with scores above 70, 53.5% and 46.1% respectively. The average intelligence test score for persons nominated by Law Enforcement Agencies was 70.3 and that for the Public Schools was 67.4. At the other extreme, Private Organizations for the Mentally Retarded nominated only 14.3% with scores above 70 and the Department of Mental Hygiene nominated only 11.5% with scores above 70. A similar pattern emerged for physical disabilities. Again, Law Enforcement and the Public Schools nominated more persons with no reported physical disabilities than any other agencies, 70.8% and 62.0%, respectively. At the other extreme, only 25% of those nominated by Private Organizations for the Mentally Retarded, 16.3% of those nominated

by Medical Facilities, and 10.9% of those nominated by the Department of Mental Hygiene, were without reported disabilities. We concluded that Law Enforcement Agencies and the Public Schools have the most stringent norms and were nominating less clinically deviant persons than other community agencies.

We concluded our study of community agencies by analyzing the organizational network linking these eight groups of agencies to each other. This analysis revealed that the Public Schools clearly hold a commanding position in the community constellation of agencies. They nominated the most persons as mental retardates and had significant numbers of overlapping cases with six other types of agencies. Because of the centrality of the public schools in the labeling process in the community, we decided to do an indepth analysis to determine how a student achieves the status of mental retardate in the public schools.

We found that there were no ethnic or socioeconomic biases in the labeling process in the public schools up through selection for testing. That is, lower status children and children from ethnic-minority backgrounds were not referred or tested in disproportionately large numbers. However, at the point when the intelligence test was administered, sociocultural factors became important. Significantly more lower-status children and children from ethnic minorities scored below 80 on the test. Significantly more children from low-status homes and ethnic-minority backgrounds not only failed the intelligence test, but disproportionately more were recommended for placement, and were ultimately placed in the status of retardate than would be expected from their proportion in the population.

The Pluralistic Assessment Project[2]

It was the widespread interest generated at the local, state, and national level by these findings of the earlier study coupled with corrobative findings from two follow-up studies which led to our current research effort (Mercer, 1970, 1971a, 1971b, 1971c, 1972).

Our present study, which we are calling the Pluralistic Assessment Project, has been funded for three years by the National Institute of

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[2]This investigation is supported by Public Health Service Grant R01 MH20646-01 from the National Institute of Mental Health, Department of Health, Education and Welfare.

Mental Health. The first year of the study, Phase I, will be spent in elaborating, pretesting, and refining measures of adaptive behavior, health and impairment, and sociocultural modality.

The conceptual framework from the Riverside epidemiology of mental retardation, will provide the foundation for the expanded framework to be used in the present study. However, our current project is studying the full range of exceptionalities identified and labeled in public school children while the Riverside study was concerned primarily with subnormal behavior. Our earlier conceptual framework focused on the negative tail of the statistical distribution and lumped all persons scoring higher than one standard deviation below the mean as an undifferentiated group of "normals," approximately 82% of the population of the community. For the Pluralistic Assessment Project, the framework will be expanded to differentiate at both extremes of the normal distribution for intellectual performance and adaptive behavior. Table 2 presents the more comprehensive typology of exceptionality which will form the conceptual framework for the proposed study using two primary dimensions: Intellectual performance and social role performance.

Insert Table 2 About Here

"Subnormal" is defined as scoring in the lowest 3% and "supranormal" is defined as scoring in the highest 3%. "Normal" refers to scores ranging from the fourth through the ninety-seventh percentile. Although further differentiation will be made within the "normal" group in the analysis, all cases in the "normal" range are treated as a single category in the typology. This conceptual typology will be used to study both the general population of public school children and sociocultural modality groups within ethnic groups. Therefore, cutoffs will be established both for the general population and for sociocultural modality groups within ethnic groups.

Seven major categories of persons will be identified using the typology of exceptionality presented in Table 2. Three of these major types are identical to types identified and studied in the Riverside epidemiology--the comprehensively retarded, the quasi-retarded, and the behaviorally maladjusted. Four new types have been added to differentiate along the entire statistical distribution. The "normals" are those who score in the normal range on both an intelligence test and on adaptive behavior. The "social role gifted" are those who score among the highest 3% in adaptive behavior and in the normal range of intelligence test scores. The "intellectually gifted" are those scoring in the highest 3% on an intelligence test but in the normal range in adaptive behavior. The "comprehensively gifted" are those who score in the supranormal range for both measures.

There are two categories which are theoretically possible but have been omitted from Table 2: Persons who are supranormal in adaptive be-

Table 2

Typology of Exceptionality[a]

	Intellectual Performance: IQ	Adaptive Social Role Behavior
Comprehensively Retarded		
With Health-Impairment[b]	Subnormal	Subnormal
Without Health-Impairment	Subnormal	Subnormal
Quasi-Retarded		
With Health-Impairment	Subnormal	Normal
Without Health-Impairment	Subnormal	Normal
Behaviorally Maladjusted		
With Health-Impairment	Normal	Subnormal
Without Health-Impairment	Normal	Subnormal
Normals		
With Health-Impairment	Normal	Normal
Without Health-Impairment	Normal	Normal
Social Role Gifted		
With Health-Impairment	Normal	Supranormal
Without Health-Impairment	Normal	Supranormal
Intellectually Gifted		
With Health-Impairment	Supranormal	Normal
Without Health-Impairment	Supranormal	Normal
Comprehensively Gifted		
With Health-Impairment	Supranormal	Supranormal
Without Health-Impairment	Supranormal	Supranormal

[a]Two theoretical types have been omitted from this table, the social role supranormal-intellectually subnormal and the intellectually supranormal-social role subnormal. If any cases appear in these categories, they will be studied as individual case studies, but it is anticipated that the total number of cases will be too small for statistical analysis. Therefore, these types have been omitted from the typology in order to simplify the overall schema.

[b]The term Health-Impairment is used as a shortened form of "health problems and/or physical impairment."

havior but subnormal on an intelligence test score, and persons who are supranormal on an intelligence test score but subnormal in adaptive behavior. Because these categories include persons who simultaneously score at the extremes of the two dimensions, it is anticipated that the total number of cases will be too small for statistical analysis. If any cases do appear, they will be studied as individual cases illustrating very divergent performances.

Each category is subdivided into those with health problems and/or physical impairment and those with neither of these. The type of information in school files and available from parents about health impairment covers only the most visible and readily reportable anomalies, but experience in the Riverside epidemiology indicated that school records and parent interviews can produce information which can be used to form a rough index of major physical problems. A Health History and Impairment Inventory will be developed for this study. The variable is treated as a dichotomy in the typology rather than a trichotomy, as in the case of intelligence test score and adaptive behavior, because a "supranormal" category is not measurable.

Operationalizing the Typology

Intellectual Performance will be operationalized by using the Wechsler Intelligence Scale for Children (1973 edition) because it is the most widely used, individually administered, intelligence test and presents a more differentiated report of the child's performance than other standardized measures.[3] In addition, WISC test scores are calculated using a standard statistical model which compares each subject's test performance with the scores of individuals in his own age group. This is the same procedure which will be used in developing the Adaptive Behavior Inventory for the Pluralistic Assessment Project.

It is proposed to develop pluralistic norms for the various sociocultural modality groupings of Mexican-American, Black, and Anglo children based on a representative sample of children 5 through 11 years of age in California public schools.

Sociocultural Modality will be operationalized using a series of questions concerning the characteristics of the child's family background. These questions will include those found to be most highly correlated with intelligence test scores and adaptive behavior in the Riverside epidemiology plus others suggested by related research. Among the questions found to be most highly correlated with intelli-

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[3]We wish to thank Dr. J. H. Ricks, A. G. Wesman, and J. E. Doppelt of the Psychological Corporation for agreeing to make the new edition of the WISC, which is now being standardized, available for the study.

gence test scores were the occupation of the head of the household, the size of the family, urban vs. rural rearing of the head of the household, educational expectations of the mother for the child, language spoken in the home, education of the head-of-household, sex of the head-of-household, whether the family owns or is renting its home, the type family structure, and so forth.

Within each ethnic group, those sociocultural characteristics of the family having the highest correlation with intelligence test scores and adaptive behavior will be selected for inclusion in a sociocultural modality index. Each child will be classified into one of five sociocultural groupings within his own ethnic group according to the extent to which his family background approximates that of the modal configuration of the community on the five characteristics most highly correlated with clinical measures for his group. These indexes, one for each ethnic group, will comprise the three sociocultural modality measures for the study.

The Adaptive Behavior Inventory for Children (ABIC)

Adaptive Behavior will be operationalized by means of an Adaptive Behavior Inventory for Children which will use the adaptive behavior scales of the Riverside epidemiology as the basis for a more extensive and refined scale directed at children 5 through 11 years of age.

The working construct of adaptive behavior developed for the earlier field survey corresponded closely to that of the AAMD but incorporated the sociological concept of the social role as a unifying focus (Mercer, in press).

When clinicians speak of social adjustment, social maturity, or social competence, they refer to an individual's ability to perform successfully in the social roles considered appropriate for his age and sex. Therefore, adaptive behavior was conceptualized as an individual's ability to play ever more complex social roles in a progressively widening circle of social systems. As a person matures, the behavioral standards of society become more demanding and the number and complexity of social roles which he is expected to play increases. His ability to cope with these increasing expectations for social role performance constitutes his adaptive behavior.

The individual's success in learning the roles expected of him in the family, neighborhood, peer group, school, and community is the basis upon which judgments of his social adequacy are made by persons playing reciprocal roles in those systems. It is this sort of judgment which is implied in legal codes describing a feebleminded person as one who is "incapable of managing himself and his affairs," as one who cannot make "proper adjustments to life for one of his chronological age," or as one

who is not able to assume "those responsibilities expected of the socially adequate person." It is this kind of judgment, made informally and unsystematically, which was systematized in our clinical epidemiology.

In a relatively undifferentiated society, children may progress from child roles to adult roles with few discontinuities. An adult may be able to master the full complement of roles available to one of his age, sex, and social position. Having once achieved adult status and mastered the appropriate roles, he seldom may be required to learn additional roles. However, in a pluralistic, urban society characterized by geographic and social mobility, adults frequently find themselves in new social systems and must learn new roles and internalize new values. In American society, socialization to unfamiliar social roles is a lifelong process.

Identifying a typical role-learning sequence would be easier in a less differentiated society. However, the clinical perspective assumes that even in a complex, industrial society there is a basic sequence of social roles which are typically learned and internalized by a majority of the population. It also assumes that there is a broad consensus as to what constitutes socially acceptable role performance at various age levels.

Immediately preceding school entrance, the child from three through five years of age is ordinarily expected to assume more responsibility for his own cleanliness and toileting; for dressing and undressing himself; for being able to distinguish harmful and dirty objects from edible ones; for using tools such as crayons, water colors, and scissors without harming himself and others; and for performing simple household tasks and running errands. He is expected to be able to move about his home and neighborhood with minimal supervision, to follow simple directions, and to cooperate with other children by playing games according to rules. This greater independence assumes that he can manage most of his social interactions with minimal adult direction, can relate events which have happened to him, and can communicate his desires to others.

School adds a new, complex social system to the life space of the child. He now must comprehend a social structure containing unfamiliar roles such as teacher, principal, secretary, custodian. He must learn to play a new and demanding role himself--that of pupil. Not only must the child locate himself vis a vis the teacher, principal, custodians, and other pupils in his class, but also in relation to those "big" pupils who have special prerogatives and responsibilities different from his own. He must learn the roles and values of his peers and simultaneously meet the ever increasing demands of the teacher. If he is to be promoted and avoid placement in special classes, the child must learn to count and read, to write and sing songs, to draw and build, and a multitude of other intricate skills.

At the same time that he is learning new roles in school, the child is expected to perform more complex family roles and to learn many new roles in the community--the role of customer in a store handling his own money and making his own selections; of pedestrian on the street obeying

traffic lights and crosswalk markings; of driver of wheeled vehicles whether they be bikes, or scooters, or skateboards; of babysitter tending younger children; of employee earning money by selling newspapers, gardening, or doing household tasks; and so forth.

The construct of adaptive behavior for the Adaptive Behavior Inventory for Children is conceptualized both as the development of skills in interpersonal relations and as an expanding, age-graded dimension in which the individual gradually increases the number of social systems in which he participates and the number and complexity of the roles he plays in those systems. Thus, it incorporates the sociological concept of the social role, described earlier, as a unifying focus. A child's ability to interact amicably with others and to cope with increasing societal demands by playing social roles in his family, neighborhood, school, and community comparable to others of his age and sex constitutes his adaptive behavior. The Inventory will focus on school-age children.

Figure 1 depicts, schematically, the five primary spheres in which adaptive behavior will be delineated for the purpose of developing the Adaptive Behavior Inventory for Children. At the hub of adaptive behavior is the individual's skill in interpersonal relations as a member of various role sets--the interpersonal sphere. We have identified 8 sets of significant others who are present in the role sets of most children: A mother or mother substitute; a father or father substitute; adult neighbors; teachers; sisters or sister figures; brothers or brother figures; peers in the neighborhood; and peers at school. Skill in interpersonal relationships with these significant others can be rated irrespective of the age of the child.

Insert Figure 1 About Here

The four primary social systems in which the child operates are the family, the neighborhood, the school, and the community. The four remaining spheres shown in Figure 1 are these four social systems. In these social systems, the number of roles and the level of expectation for performance increase with age. Arrows pointing outward from the hub in Figure 1 indicate increasing societal expectations within each sphere. Increasing societal expectations are conceptualized as having three underlying themes: Increasing complexity in the nature of the performance expected; the expectation that role performance will be progressively more motivated by internal than external controls; and expanding independence and freedom from adult supervision in role performance.

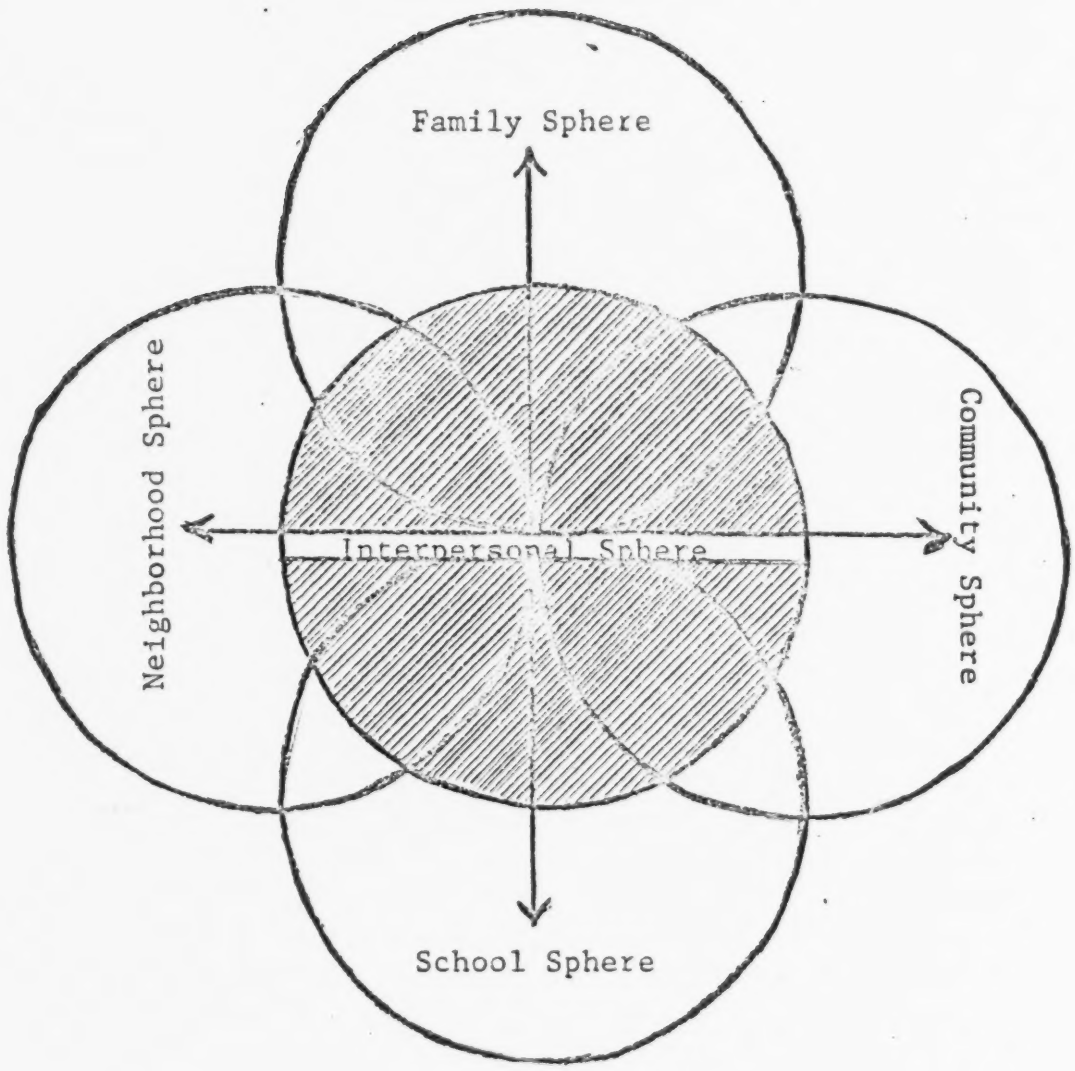
Adaptive Behavior Inventory, Pretest Edition 19'1

The Adaptive Behavior Inventory for Children, Pretest Edition has been developed to tap both aspects of social role behavior: (1) the

Figure 1

Spheres of Social Role Performance

Adaptive Behavior Inventory for Children



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child's skill in interpersonal relations in various role sets; and (2) the extent of internal control, independence, and complexity in a child's social role performance in each of the four social systems with advancing chronological age. The age span to be covered by the Inventory is 5 through 11 years of age. This age span has been selected because it is the period in life when children are most carefully scrutinized and are subject to the highest risk of being labeled as deviant. Items were selected so that very low as well as very high adaptive social role behavior can be evaluated. For this reason, items appropriate for 3 through 15-year-old children are included in the Inventory in order to provide a low enough floor to evaluate subnormal 5-year-olds and a high enough ceiling to evaluate supranormal 11-year-olds.

Items for the Inventory have been collected from a variety of sources. The Adaptive Behavior Scales used in the Riverside epidemiology of retardation served as the basic source for items in all spheres of behavior. Information from follow-up interviews with the mothers of children in classes for the educable mentally retarded also served as a source of items. Additional items were developed in consultation with persons, including many parents, familiar with the environmental settings of children from a variety of cultural groups, especially Mexican-American and Black children. In so far as possible, items were selected that appear to apply equally to both sexes, all socioeconomic levels, and all ethnic groups.

Performance in the interpersonal sphere consists of ratings of interpersonal relations with the 8 sets of significant others listed in the definition. Each of the four age-graded spheres have 5 dimensions along which increasing complexity, independence, and internalization of control will be plotted.

Table 3 presents the 5 spheres and their dimensions. Dimensions listed for all spheres are subject to change on the basis of pretesting, consultation, further experience with the measures and factor analysis.

Insert Table 3 About Here

In the pretest, mothers and fathers of children 5 through 11 years of age from all ethnic and socioeconomic levels are being contacted through various parent, volunteer, club or neighborhood groups and asked to respond to sets of items in the Inventory.

Data from the pretesting will be analyzed to determine the approximate age level placement for each question and the sequence in which each question will be placed in the measure to be used in Phase 2 of the study. Any questions that prove to be ambiguous will either be discarded or modified. Questions that receive significantly different patterns of responses by sex, ethnic group or socioeconomic status of the child will either be modified to eliminate discrepancies or discarded.

Table 3

ADAPTIVE BEHAVIOR INVENTORY FOR CHILDREN
(ABIC)

Five Spheres of Role Behavior

Family Role Performance: (153)*	Neighborhood Role Performance: (82)	Interpersonal Style: (40)	Student Role Performance: (120)	Community Role Performance: (125)
Care of own and family belongings (31)	Independence in movement about the neighborhood (21)	Affection (8)	Learning and study havits (40)	Consumer-Spender behavior (31)
Responsibility for younger children (24)	Neighborhood play and peer group activities (19)	Cooperation (8)	Responsibilities assigned by teachers (17)	Worker-Earner behavior (23)
Care, dressing and health of own body (35)	Work in neighborhood to earn money (12)	Independence (8)	Responsibilities conferred by peers (14)	Independence in movement about the community (35)
Preparation of food and use of equipment (20)	Neighborhood social affairs and activities (12)	Sociability (8)	Social and athletic activities (15)	Social, political, religious, and recreational activities (21)
Family communication, decision making, and scheduling of own time (43)	Volunteer services to neighbors (18)	Stability (8)	Academically oriented activities (34)	Community service and volunteer activities (15)

*Figures represent total numbers of items in each sphere and in each dimension of each sphere for the Pretest Edition of ABIC. Overall total of items equals 520.

Findings from the earlier study indicate that adaptive behavior may be relatively uniform across socioeconomic and ethnic groupings for school-age children. Thus, it is possible that a single measure of adaptive behavior can be developed. If not, then pluralistic norms will be developed.

The Health History and Impairment Inventory will provide a systematic set of questions which a child's mother or principal caretaker will be able and willing to answer that will present a global indicator of the child's level of functioning. It will provide a preliminary screening instrument which can be used by a school nurse, a welfare worker, a school psychologist, or other agency person wishing to make a brief standardized inquiry about the Health History and Impairment of an individual child. It will provide him with an indicator of the child's current functioning relative to that of other children his age. The Inventory should not be construed as a medical index for it rests entirely upon the report of the mother and is subject to all the errors found in such reports.

The Health History portion of the Inventory covers four dimensions: Prenatal and Postnatal Complications; Serious Acute Illnesses; Chronic Conditions; and Major Operations and Injuries. The Impairment Inventory covers six dimensions: Vision; Hearing; Speech; Use of Members; Activity Limitations; and Need for Home Care.

Collection of Standardization Data, Phase 2

The research objective during Phase 2 of the epidemiology, 1972-73, will be to secure data from three representative samples of public school children, 5 through 11 years of age, of Mexican-American, Black, and Anglo heritage in the State of California. The data will be used to standardize pluralistic norms for the WISC and the Adaptive Behavior Inventory for Children for sociocultural modality groupings within ethnic group.

Sample Design. Three representative samples of 700 California elementary school children 5 through 11 years of age will be selected. One sample will consist of 700 Mexican-American children, distributed 50 males and 50 females at each age level, 5 through 11 years. The second sample will consist of 700 Black children and the third sample of 700 Anglo children, similarly distributed. Table 4 presents the distribution by age and sex within each ethnic group.

Insert Table 4 About Here

The procedure for selecting each of the three ethnic samples will be identical. Each fall, the California State Department of Education takes a census of the total number of children enrolled in each school district who are members of the major ethnic groups in the state's

Table 4

Sample Design for Phase II: Representative Sample of Public School Children

Age	Anglo Sample		Mexican-American Sample		Black Sample		Total
	Male	Female	Male	Female	Male	Female	
5	50	50	50	50	50	50	300
6	50	50	50	50	50	50	300
7	50	50	50	50	50	50	300
8	50	50	50	50	50	50	300
9	50	50	50	50	50	50	300
10	50	50	50	50	50	50	300
11	50	50	50	50	50	50	300
Total by Sex	350	350	350	350	350	350	2,100
Total Sample		700		700		700	2,100

population. Each ethnic sample will be selected independently using the information in this survey. First, a sample of 50 school districts will be selected on a random, probability basis. The probability of any district being selected for the sample will be directly related to the number of students of the ethnic group being sampled who are enrolled in that district. Selection of the Mexican-American sample will be used for illustrative purposes.

All elementary and unified school districts in the State of California will be listed in alphabetic order together with the total enrollment of Mexican-American children in grades K-6. Cumulative total enrollment will be calculated, sequentially, over all districts on the list. To determine the sampling ratio for selecting the 50 school districts, the total number of Mexican-American children in grades K-6 in all elementary and unified school districts in the state will be divided by 50, the number of districts to be selected. A number will be selected, randomly, between one and the sampling ratio to determine the first child in the cumulative total whose district will be selected for the sample. The district in the cumulative total in which the child with this number is located will be the first district. The sampling ratio will then be added to the initial randomly selected number and the district in which the child with that number is located will be the next district in the sample, until the total population of Mexican-American children has been sampled and 50 districts selected, and so forth. Larger districts, such as the Los Angeles Unified School District, will be sampled several times, in proportion to the relative size of their school enrollment.

Each time a district is sampled a cluster of 14 children will be randomly selected from the students enrolled in that district who are members of the ethnic group being sampled. Thus, each ethnic sample will consist of 50 clusters of 14 children. The cluster will be distributed so that there is one male and one female for each age level, 5 through 11. Individual children will be randomly selected from the enrollment files of each district until the 14 cells of the cluster are each filled.

Because districts selected for the Anglo, Mexican-American, and Black samples will be selected independently, a district may be selected for the Black sample but not for the Anglo or Mexican-American sample. A district may be selected for two of the three samples, three of the three samples, or other possible combinations.

Procedures. One of the parents of each child selected for the sample will be interviewed to secure information about the sociocultural characteristics of the home, the child's adaptive behavior, and any health problems or impairments that the child has, or has had. Parents will be given an explanation of the study and their informed consent secured. If any parents refuse to participate in the study, their child will be replaced in the sample by further random selection from the pool of children of that ethnic group enrolled in the district.

Basic information will be kept about all refusals to determine if systematic biases are introduced into the study. Children who are selected for the sample in any district will be administered the new 1973 edition of the Wechsler Intelligence Scale for Children through special arrangement with the Psychological Corporation.

Some Questions Which Will Be Answered by the Pluralistic Assessment Project

(1) How much of the variance in WISC test scores can be accounted for by sociocultural factors for the three ethnic groups taken together? For each ethnic group taken separately?

(2) What sociocultural characteristics are most predictive of intelligence test scores for each ethnic group, i.e., which characteristics should be included in the sociocultural modality index for each ethnic group?

(3) How much of the variance in adaptive behavior can be accounted for by sociocultural factors for the three ethnic groups taken together? For each ethnic group taken separately?

(4) What sociocultural characteristics are most predictive of adaptive behavior, i.e., which characteristics should be included in the sociocultural modality index for each ethnic group?

(5) How do sociocultural factors and health-impairment problems interact in predicting WISC test scores and adaptive behavior?

(6) What are the sociocultural characteristics of children who fall into each category of the typology of exceptionality (see Table 2) when traditional norming procedures are used? When pluralistic norming procedures are used?

Anticipated Products of the Project

(1) The project will produce an Adaptive Behavior Inventory for Children standardized on representative samples of Anglo, Mexican-American, and Black public school children 5 through 11 years of age which can be used to assess a child's performance in non-academic roles using socioculturally relevant norms.

(2) The project will produce socioculturally relevant norms on the 1973 edition of the WISC for use with Anglo, Mexican-American, and Black children.

(3) The project will produce a Health History and Impairment Inventory standardized on a representative sample of Anglo, Mexican-American, and Black children which can be used to secure a global rating of the Health History and functioning of each child relative to his peers. The rating may be used for preliminary screening to help identify children who may need a medical follow-up.

(4) The project will produce pluralistic assessment procedures

based on the above products which will assist in the evaluation of children from non-modal sociocultural settings.

Significance of the Study

The clinical procedures and normative framework currently used by school psychologists in assessing and placing children in special public school programs has resulted in the placement of many children from sociocultural backgrounds which differ from the Anglo mode for American society into inappropriate educational programs. We anticipate that the pluralistic assessment project will provide one approach to developing a system for taking sociocultural differences into account in assessing lower status Anglo children, Chicano children, and Black children. Such a pluralistic assessment should result in more appropriate educational placement and programming.

References

Mercer, Jane R. Sociological perspectives on mild mental retardation. Social-cultural aspects of mental retardation. Carl Haywood (Ed.), New York: Appleton-Century-Crofts, Inc., 1970.

Mercer, Jane R. Institutionalized Anglocentrism: Labeling mental retardates in the public schools. In Peter Orleans and William R. Ellis, Jr. (Eds.), Race, change, and urban society. Urban Affairs Annual Review, Vol V., Los Angeles: Sage Publications, Inc., 1971 (a).

Mercer, Jane R. The meaning of mental retardation. In Richard Koch and James Dobson (Eds.), The mentally retarded child and his family: A multidisciplinary handbook. New York: Brunner/Mazel, Inc., 1971 (b).

Mercer, Jane R. Sociocultural factors in labeling mental retardates. The Peabody Journal of Education, April, 1971, 48(3), 188. (c).

Mercer, Jane R. Labeling the mentally retarded. Berkeley: University of California Press, 1972, in press.